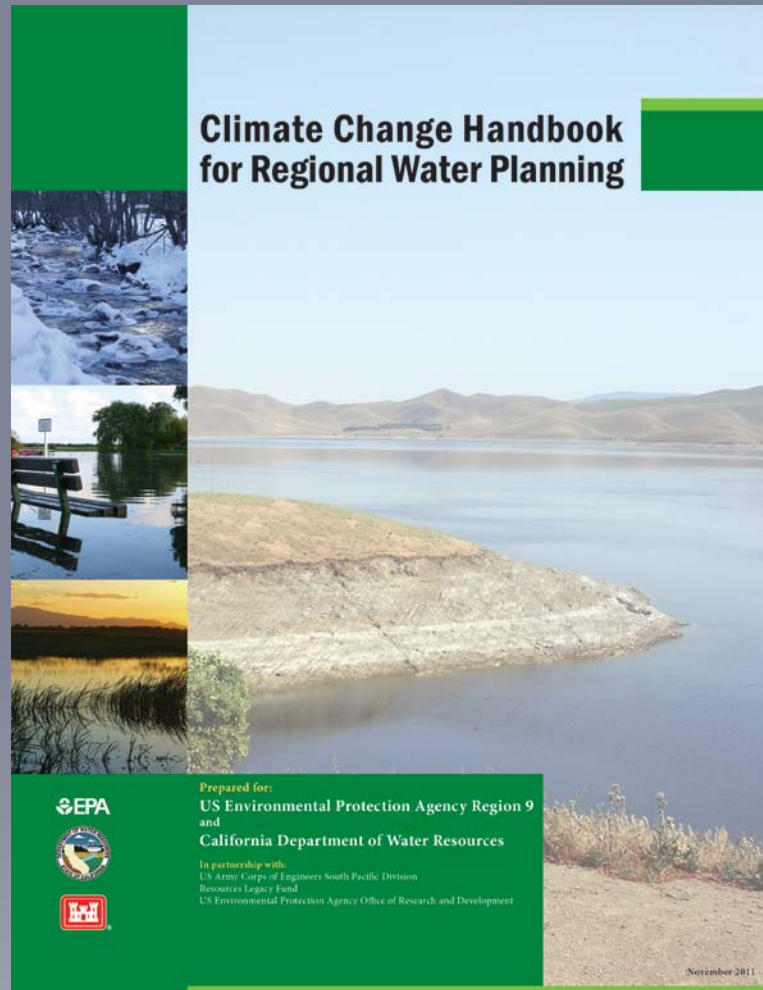




# Using the Climate Change Handbook for IRWM Planning



**Andrew Schwarz P.E.**

California Department of Water Resources  
Division of Statewide Integrated Water Management

# Climate Change Handbook

## Background

- Jointly developed
  - EPA, DWR, USACE and Resources Legacy Fund
  - CDM
- Commenting and editing
  - Round Table of Regions (Summer 2010)
  - Draft posted on the web (May 2011)
  - IRWM Conference (May 2011)
  - Technical Advisory Committee reviews (June/July 2011)

# Handbook's Purpose

- Outline the general process for accounting for climate change in water planning
- Synthesize available literature in a way that is useful for regional water planning
- Support IRWM planning in California

# What the Handbook is NOT

- A cookbook
- A one-size-fits-all methodology or approach
- An extension of or an addition to the IRWM Guidelines
- A requirement

# Climate Change Analysis

## Climate Change Analysis

Assess Vulnerability

Measure Impacts

Evaluate Strategies  
(including adaptation and mitigation)

Implement Under Uncertainty

## Climate Change Impacts and Adaptation Analysis

Initial Vulnerability Assessment

Impact Measurement

Strategy Evaluation

Implementation Under Uncertainty

## IRWMP Process

Establishment of a Governance Structure

Study Area (Region Description)

Definition of Objectives and Performance Metrics

Description and Characterization of Projects and Programs

Integration of Projects and Programs

Description of Impacts and Benefits of Selected Projects and Programs

Prioritization of Integrated Projects and Programs

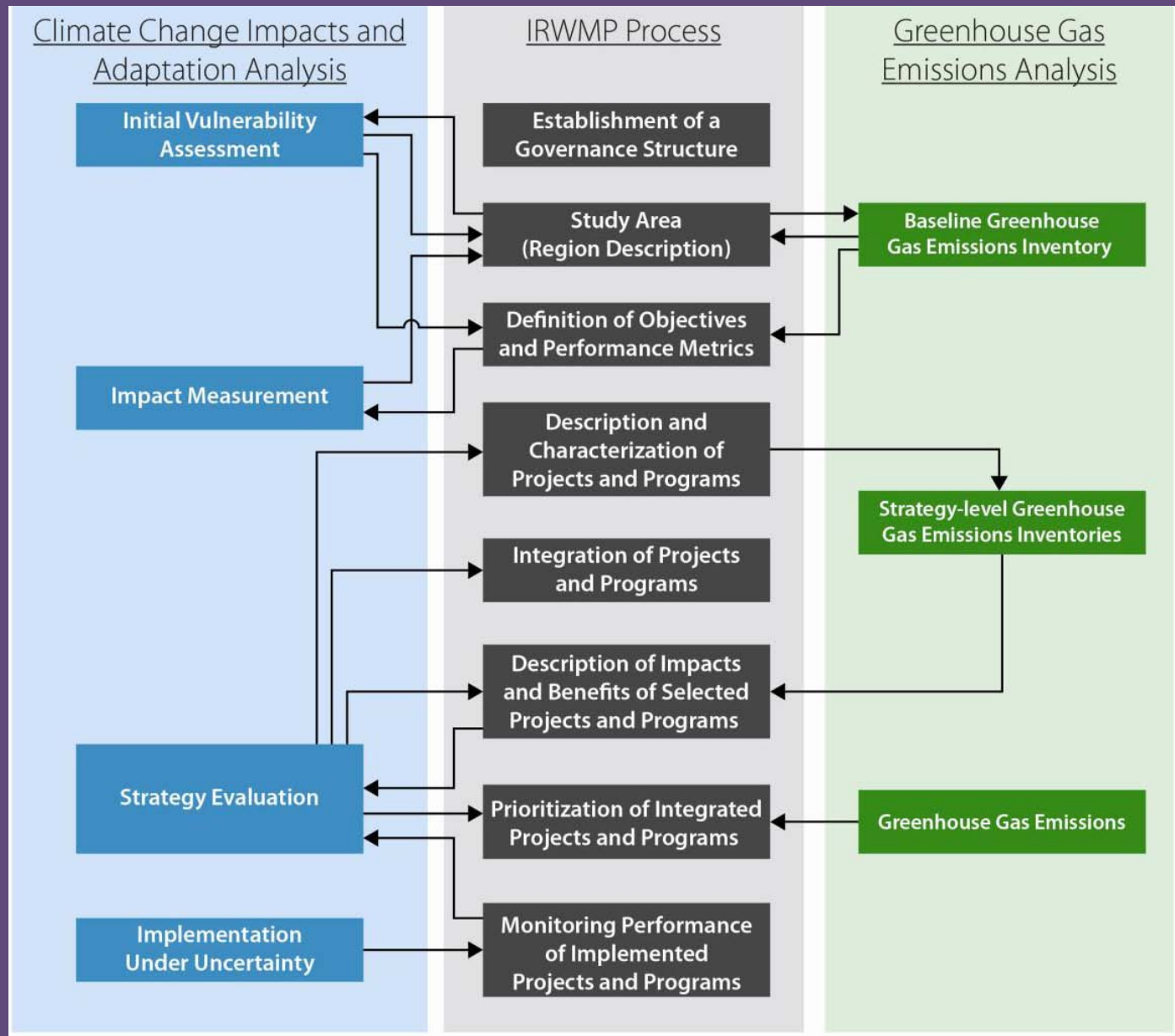
Monitoring Performance of Implemented Projects and Programs

## Greenhouse Gas Emissions Analysis

Baseline Greenhouse Gas Emissions Inventory

Strategy-level Greenhouse Gas Emissions Inventories

Greenhouse Gas Emissions



# Handbook Organization

- Chapter 1: Overview
- Chapter 2: The Science of Climate Change
- Chapter 3: Evaluating the Energy-Water Connection
- Chapter 4: Assessing Regional Vulnerability
- Chapter 5: Measuring Impacts
- Chapter 6: Evaluating Planning Options
- Chapter 7: Implementing Under Uncertainty

Also: Case Studies, extensive literature resources, and tools

# Anticipated Requirements for IRWMPs :

- a regional climate change vulnerability assessment
- a list of prioritized vulnerabilities
- a plan for data gathering/analyzing the prioritized vulnerabilities.



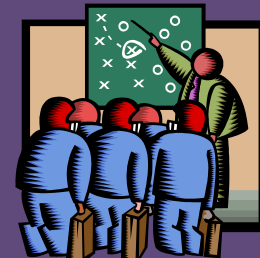
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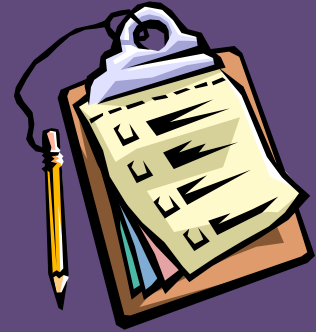


# Regional Vulnerability Assessment

## Chapter 4

Provides several methods for assessing a region's specific vulnerabilities to climate change.

- An extensive checklist of qualitative metrics that highlight vulnerabilities



# Prioritizing Regional Vulnerabilities

## Chapter 4

Provides several factors that a region would want to consider when prioritizing its vulnerabilities.

- Overall planning priorities
- Risks
- Potential for multiple stressors
- Potential adaptive capacity

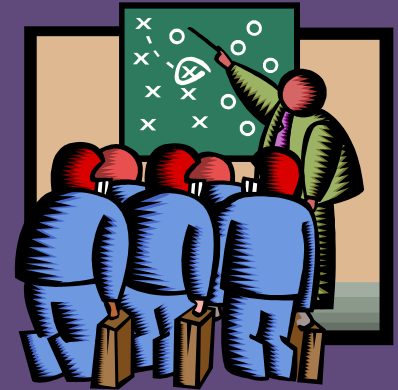


# Measuring Climate Change Impacts

## Chapter 5

Provides detailed information on different methods for analyzing and measuring potential impacts of climate change.

- Gathering the required data
- Understanding the data
- Conducting the necessary analysis

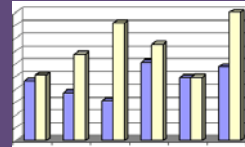


# Climate Change in Other Elements of and IRWM Plan

- Region Description



- Project Review Process



- Plan Performance and Monitoring



# Region Description

Handbook contains a number of resources to help regions describe their region:

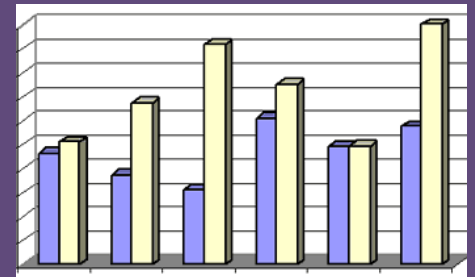
- a searchable database (Appendix A)
- a list of climate change tools (Appendix D)
- regional GHG emissions inventory tools (Chapter 3)



# Project Review Process

**Chapter 6** of the Handbook describes:

- Performance metrics for climate change adaptation
- Project level GHG emissions assessments



# Plan Performance and Monitoring

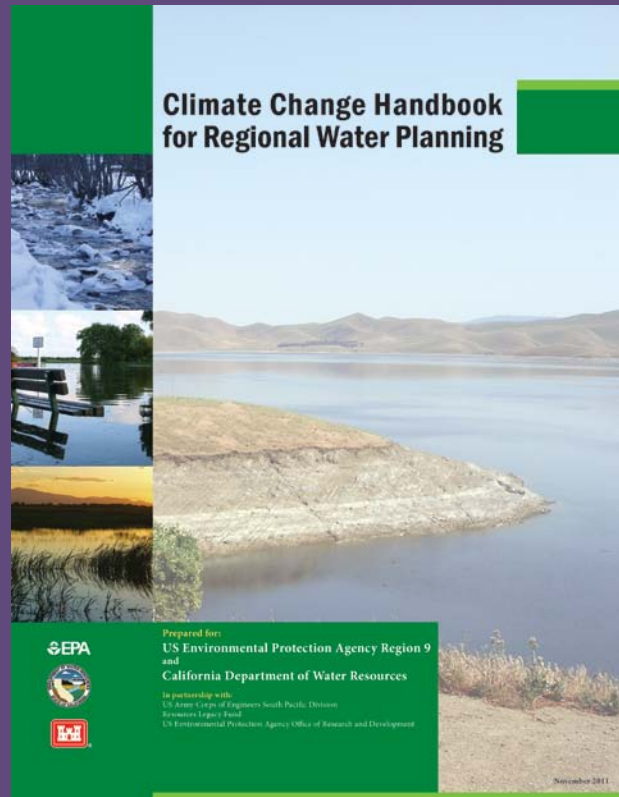
The Handbook describes several approaches for handling uncertainty and incorporating new information as it becomes available (**Chapter 7**)

- Adaptive Management
- Robust Decisions Making
- Decision Scaling and Scenario Planning



# How to Get the Handbook

[www.water.ca.gov/climatechange/CCHandbook.cfm](http://www.water.ca.gov/climatechange/CCHandbook.cfm)



[ClimateChangePublicAdvisory@water.ca.gov](mailto:ClimateChangePublicAdvisory@water.ca.gov)